

SCS ENGINEERS

June 24, 2015
Project No. 25212005.00

Ms. Karen Mason-Smith
Remedial Project Manager
USEPA – Region V
77 West Jackson Boulevard, SR-6J
Chicago, IL 60604-3504

Subject: Exceedance Report – First 2015 Semiannual Monitoring Period
HOD Landfill
Village of Antioch, Illinois

Dear Ms. Mason-Smith:

Attached are tables that present the results from analysis of groundwater, surface water, and leachate samples collected during the first 2015 semiannual sampling event at the HOD Landfill that exceed the site-wide protection standards established in the approved Performance Standards Verification Plan (PSVP) for the HOD Landfill in Antioch, Illinois. This evaluation, also known as the exceedance report, is being submitted in accordance with Section 7.1 of the PSVP.

The samples were collected by personnel from Environmental Monitoring and Technologies, Inc. (EMT) of Morton Grove, Illinois, during the period of April 10 through 14, 2015. EMT personnel obtained depth to groundwater measurements at each of the 30 site monitoring wells on April 10, 2015, prior to beginning groundwater sampling. Groundwater samples were collected from 15 monitoring wells and a Village of Antioch well (VW-03). In addition, two surface water samples (SW-01 and SW-02) and a leachate sample (LCT-01) were also collected during this sampling period. Sampling activities were performed without incident and in accordance with the Field Sampling and Analysis Plan for the HOD Landfill.

As identified in **Table 1**, exceedances of the site-wide protection standards for groundwater were identified in review of the data from analysis of samples collected from wells US-03D and W-08D during this reporting period. Parameters that exceeded the site-wide groundwater protection standards include several inorganic (i.e., chloride, manganese) and organic (i.e., cis-1,2-dichloroethene, vinyl chloride) parameters. As indicated in **Table 2**, there were no exceedances of the site-wide protection standards for surface water in review of the data from analysis of the samples collected during this reporting period. As indicated in **Table 3**, there were no exceedances of the wastewater effluent standards for leachate. The presence and concentrations of these parameters are not expected to preclude treatment at a publically-owned treatment works.

The results from this reporting period are generally consistent with data from prior sampling events. In accordance with Subsection 8.2.1 of the PSVP, the data from this reporting period is reviewed in greater detail in an annual report for the site. The review in the annual report



includes evaluation of data from both semiannual (i.e., April and October) sampling events at the site, as well as a comparison of the groundwater data that exceeds the site-wide protection standards to historical results where warranted.

Please contact us at 262.345.1220 if you have any questions concerning this report.

Sincerely,



Zach Watson
Associate Scientist
SCS ENGINEERS



Michael J. Prattke
Senior Project Manager
SCS ENGINEERS

RRJ/TLC/MJP

cc: Mike Peterson, Waste Management of Illinois, Inc.

- Attachments: Table 1 – Parameters that Exceeded Groundwater Site-wide Protection Standards, HOD Landfill, April 2015
Table 2 – Parameters that Exceeded Surface Water Site-wide Protection Standards, HOD Landfill, April 2015
Table 3 – Parameters that Exceeded Leachate Site-wide Protection Standards, HOD Landfill, April 2015

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Table 1
Parameters that Exceeded Groundwater Site-wide Protection Standards
First Semiannual Sampling Event - April 2015
HOD Landfill - Antioch, Illinois / SCS Engineers Project No. 25212005.00

Well	Compound	Site-Wide Groundwater Protection Standard ⁽¹⁾	2015 Exceedances
			First Semiannual Monitoring Event
US-03D	Chloride, Dissolved (mg/L)	200	275
	cis-1,2-Dichloroethene (µg/L)	70	260
	Vinyl chloride (µg/L)	2	42
DUP (US-03D)	Chloride, Dissolved (mg/L)	200	264
	cis-1,2-Dichloroethene (µg/L)	70	240
	Vinyl chloride (µg/L)	2	45
W-08D	Manganese, Dissolved (µg/L)	150	167

Abbreviations:

µg/L = micrograms per liter

mg/L = milligrams per liter

Footnotes:

⁽¹⁾ Groundwater quality standards for the HOD site are listed in Table 1 of the PSVP (RMT, 2001e).

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Table 2
Parameters that Exceeded Surface Water Site-wide Protection Standards
First Semiannual Sampling Event - April 2015
HOD Landfill - Antioch, Illinois / SCS Engineers Project No. 25212005.00

Well	Compound	General Use Water Quality Standards ⁽¹⁾	2015 Exceedances
			First Semiannual Monitoring Event
SW01			No Exceedances
SW02			No Exceedances

Footnotes:

⁽¹⁾ General Use Water Quality Standards for the HOD site are listed in Table 2 of the PSVP revised by RMT in April 2008.

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Table 3
Parameters that Exceeded Leachate Site-wide Protection Standards
First Semiannual Sampling Event - April 2015
HOD Landfill - Antioch, Illinois / SCS Engineers Project No. 25212005.00

Constituent	Leachate Sample Results April 13, 2015 (mg/L unless otherwise indicated)
No Exceedances	

Abbreviations:

mg/L = milligrams per liter

Notes:

- 1) The screening criteria used in this table are wastewater effluent standards for leachate as identified in Table 4 of the October 2001 PSVP developed by RMT.
- 2) The annual leachate sample (LCT-01) was collected on April 13, 2015.

Footnotes:

- ⁽¹⁾ Derived from 35 IAC 304.124 through 304.125, concentrations for metals are total.
- ⁽²⁾ Interpreted from 135 IAC 304.126.

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Z:\Projects\25212005.00\Reports\2015\April 2015 EPA Letter\Table 3 - Leachate Results